

*1*  
3. (Twice Amended) A method of performing calculations in a calculator having an electronic input surface, [ a stylus for tracing across the electronic input surface, ] an electronic monitor, and a processing circuit coupled to the electronic input surface and the electronic monitor, the method comprising the steps of:

*12*  
*B*

- (a) recording movements of [ the ] a [ stylus ] pointing element in the processing circuit, as the [ stylus ] pointing element is traced across the electronic input surface;
- (b) recognizing the recorded movements of the [ stylus ] pointing element as characters in the processing circuit;
- (c) converting the characters into a first mathematical expression [ s ] comprised of operands and operators in the processing circuit;
- (d) displaying the first mathematical expression on the electronic monitor [ so that all of the operands and operators are simultaneously displayed thereon ];
- (e) performing calculations indicated by the displayed first mathematical expressions in the processing circuit; [ and ]
- (f) displaying a result of the performed calculations on the electronic monitor; and
- (g) logically linking the first mathematical expression to a second mathematical expression inscribed on the electronic input surface.

<sup>10</sup>  
~~16.~~ (Amended) The invention as set forth in claim <sup>8</sup> above,  
B<sup>13</sup> further comprising the step of accepting corrections in the  
mathematical expressions traced by the [ stylus ] pointing  
element in the electronic input surface.

<sup>12</sup>  
~~18.~~ (Amended) The invention as set forth in claim [ 17 ] <sup>1</sup>  
above, wherein the first and second mathematical expressions are  
linked in response to their proximity to one another on the  
electronic input surface.

<sup>14</sup>  
~~19.~~ (Amended) The invention as set forth in claim [ 17 ] <sup>1</sup>  
above, wherein the first and second mathematical expressions are  
linked in response to a user tracing a linking operator on the  
electronic input surface.

<sup>14</sup>  
~~20.~~ (Amended) The invention as set forth in claim <sup>19</sup> above,  
wherein the linking operator is an arrow having a tail proximal  
[ a ] the first [ operand or ] mathematical expression and a head  
proximal [ a ] the second [ operator or ] mathematical  
expression.

<sup>15</sup>  
~~22.~~ (Amended) The invention as set forth in claim <sup>20</sup> above,  
B<sup>14</sup> wherein the logically linking step further comprises [ ing ] the  
step of re-computing the second mathematical expression when the  
first mathematical expression is altered on the electronic input  
surface.

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~~23.~~ (Twice Amended) The invention as set forth in claim  
[ 17 ] ~~2~~ above, wherein the logically linking step further  
comprises [ ing ] the step of re-computing [ at least two ] the  
first and second mathematical expressions logically linked  
together, thereby incorporating a result of [ a ] the first  
[ calculation ] mathematical expression into [ a ] the second  
[ calculation ] mathematical expression.

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~~24.~~ (Twice Amended) The invention as set forth in claim  
[ 17 ] ~~2~~ above, wherein the logically linking step further  
comprises [ ing ] the step of re-computing the first and second  
mathematical expressions logically linked together, wherein the  
first and second mathematical expressions are on separate pages  
displayed on [ an ] the electronic monitor, thereby incorporating  
[ the ] a result of the first mathematical expression into the  
second mathematical expression.

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~~25.~~ (Twice Amended) The invention as set forth in claim  
[ 17 ] ~~2~~ above, wherein the logically linking step further  
comprises [ ing ] the step of re-computing the first and second  
mathematical expressions logically connected together, wherein  
the first and second mathematical expressions are in separate  
applications executed by the processing circuit, thereby  
incorporating [ the ] a result of the first mathematical  
expression into the second mathematical expression.

<sup>20</sup>  
~~26.~~ (Amended) The invention as set forth in claim <sup>3</sup> above,  
further comprising the step of accepting marks traced by the  
[ stylus ] pointing element on the electronic input surface to  
annotate and label the recorded movements.

<sup>21</sup>  
~~27.~~ (Amended) The invention as set forth in claim <sup>3</sup> above,  
further comprising the step of accepting insertions in the  
mathematical expressions traced by the [ stylus ] pointing  
element on the electronic input surface.

<sup>22</sup>  
~~28.~~ (Amended) The invention as set forth in claim <sup>3</sup> above,  
further comprising the step of accepting deletions in the  
mathematical expressions traced by the [ stylus ] pointing  
element on the electronic input surface.

<sup>23</sup>  
~~29.~~ (Amended) The invention as set forth in claim <sup>3</sup> above,  
further comprising the step of accepting erasures in the  
mathematical expressions traced by the [ stylus ] pointing  
element on the electronic input surface.

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53. (New) A calculator having an electronic input surface, an electronic monitor, and a processing circuit coupled to the electronic input surface and the electronic monitor, comprising:

(a) means for recording movements of a pointing element in the processing circuit, as the pointing element is traced across the electronic input surface;

(b) means for recognizing the recorded movements of the pointing element as characters in the processing circuit;

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(c) means for converting the characters into a first mathematical expression comprised of operands and operators in the processing circuit;

(d) means for displaying the first mathematical expression on the electronic monitor;

(e) means for performing calculations indicated by the displayed first mathematical expression in the processing circuit;

(f) means for displaying a result of the performed calculations on the electronic monitor; and

(g) means for logically linking the first mathematical expression to a second mathematical expression inscribed on the electronic input surface.

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54. (New) The invention as set forth in claim 53, wherein the electronic monitor is the electronic input surface.

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55. (New) The invention as set forth in claim 53, wherein  
the operands comprise symbols.

27  
56. (New) The invention as set forth in claim 53, wherein  
the operands comprise digits.

28  
57. (New) The invention as set forth in claim 56 above,  
further comprising means for recognizing numbers from the  
relative placement of the digits, so that when the digits are  
traced horizontally in close proximity to one another on the  
electronic input surface, they are considered to be a single  
number.  
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58. (New) The invention as set forth in claim 53 above,  
further comprising means for recognizing mathematical expressions  
traced horizontally and vertically on the electronic input  
surface.

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59. (New) The invention as set forth in claim 53 above,  
further comprising means for computing a result for the  
calculations when the user traces a result operator on the  
electronic input surface.

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60. (New) The invention as set forth in claim 59 above,  
wherein the result operator is an equal sign in a horizontal  
mathematical expression.

~~32~~  
~~61.~~ (New) The invention as set forth in claim ~~59~~<sup>30</sup> above,  
wherein the result operator is a result line in a vertical  
mathematical expression.

~~33~~  
~~62.~~ (New) The invention as set forth in claim ~~53~~<sup>24</sup> above,  
further comprising means for animating expressions on the  
electronic input surface as they are being calculated.

~~34~~  
~~63.~~ (New) The invention as set forth in claim ~~53~~<sup>24</sup> above,  
further comprising means for accepting corrections in the  
mathematical expressions traced by the pointing element in the  
electronic input surface.

~~35~~  
~~64.~~ (New) The invention as set forth in claim ~~53~~<sup>24</sup> above,  
wherein the first and second mathematical expressions are linked  
in response to their proximity to one another on the electronic  
input surface.

~~36~~  
~~65.~~ (New) The invention as set forth in claim ~~53~~<sup>24</sup> above,  
wherein the first and second mathematical expressions are linked  
in response to a user tracing a linking operator on the  
electronic input surface.

<sup>37</sup>  
~~36~~. (New) The invention as set forth in claim <sup>36</sup>~~65~~ above,  
wherein the linking operator is an arrow having a tail proximal  
the first mathematical expression and a head proximal the second  
mathematical expression.

<sup>38</sup>  
~~37~~. (New) The invention as set forth in claim <sup>37</sup>~~66~~ above,  
wherein a result from the first mathematical expression is an  
operand in the second mathematical expression.

<sup>39</sup>  
~~38~~. (New) The invention as set forth in claim <sup>37</sup>~~66~~ above,  
wherein the means for logically linking further comprises means  
for re-computing the second mathematical expression when the  
first mathematical expression is altered on the electronic input  
surface.

<sup>40</sup>  
~~39~~. (New) The invention as set forth in claim <sup>24</sup>~~53~~ above,  
wherein the means for logically linking further comprises means  
for re-computing the first and second mathematical expressions  
logically linked together, thereby incorporating a result of the  
first mathematical expression into the second mathematical  
expression.

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70. (New) The invention as set forth in claim 53 above,  
wherein the means for logically linking further comprises means  
for re-computing the first and second mathematical expressions  
logically linked together, wherein the first and second  
mathematical expressions are on separate pages displayed on an  
electronic monitor, thereby incorporating a result of the first  
mathematical expression into the second mathematical expression.

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71. (New) The invention as set forth in claim 53 above,  
wherein the means for logically linking further comprises means  
for re-computing the first and second mathematical expressions  
logically connected together, wherein the first and second  
mathematical expressions are in separate applications executed by  
the processing circuit, thereby incorporating a result of the  
first mathematical expression into the second mathematical  
expression.

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72. (New) The invention as set forth in claim 53 above,  
further comprising means for accepting marks traced by the  
pointing element on the electronic input surface to annotate and  
label the recorded movements.

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73. (New) The invention as set forth in claim 53 above,  
further comprising means for accepting insertions in the  
mathematical expressions traced by the pointing element on the  
electronic input surface.